

## ZAMBIA RAILWAYS LIMITED

PRESENTATION ON THE STATE OF THE RAILWAY INFRASTRUCTURE AND THE REHABILITATION PROJECT DURING "THE DIRECT LINE CALL TO AMERICAN BUSINESS"



### **ZRL-BACKGROUND**

- ZRL is wholly owned by the Government of the Republic of Zambia and is mandated under the Railways Act to operate both rail passenger and freight trains. It was incorporated in 1982.
- Zambia Railways Limited (ZRL) was set up to be the main carrier of especially mining raw materials and products.
- Up until 2003, the company was a parastatal but privatized through concessioning to a private entity called "Railway Systems of Zambia" but on 10<sup>th</sup> September 2012, the government rescinded its decision and repossessed Zambia Railways Limited from the private entity due to the general deterioration of the rail infrastructure and rolling stock.
- The total rail network is 1,224 Kilometres and stretches from Livingstone in the southern part of Zambia to Chililabombwe in the north.
- Until the 1990's, ZRL was the main carrier of the bulk cargo and passengers.
  Today, trucks are the dominant transport mode. The resulting damage to
  Zambia's roads and concerns over congestion, safety and environmental
  damage have led to widespread calls for the Government to act to divert
  traffic from road to rail.



### **GOALS**

- To make ZRL the employer of choice by 2015
- To increase train speeds to an average of 70km/h and 80 km/h for goods and freight trains respectively after full track rehabilitation
- To provide adequate and reliable rolling stock by 2018 for 5 million tons/ year
- To sustain high quality growth through quality services from 2014
- To increase freight and passenger traffic
- To provide high return on investment starting 2016



### **ZRL – Mission Statement**

"To provide reliable, secure and environmentally friendly cargo and passenger rail transport to the satisfaction of all stakeholders"



### **ZRL – Vision Statement**

"To be the leading bulk and heavy cargo transport company in Zambia and the most reliable link in Southern Africa railway network operating in a cost effective, efficient and safest manner"



### ORGANISATIONAL VALUES

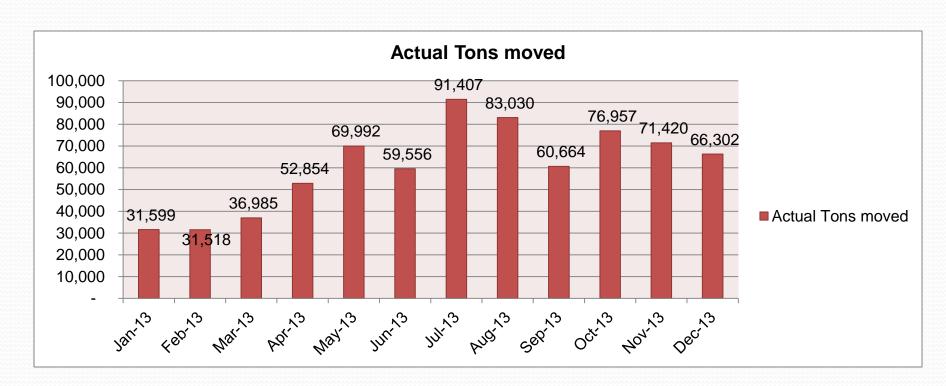
- Honesty in all our dealings
- Loyalty to our company
- Team work
- Excellence



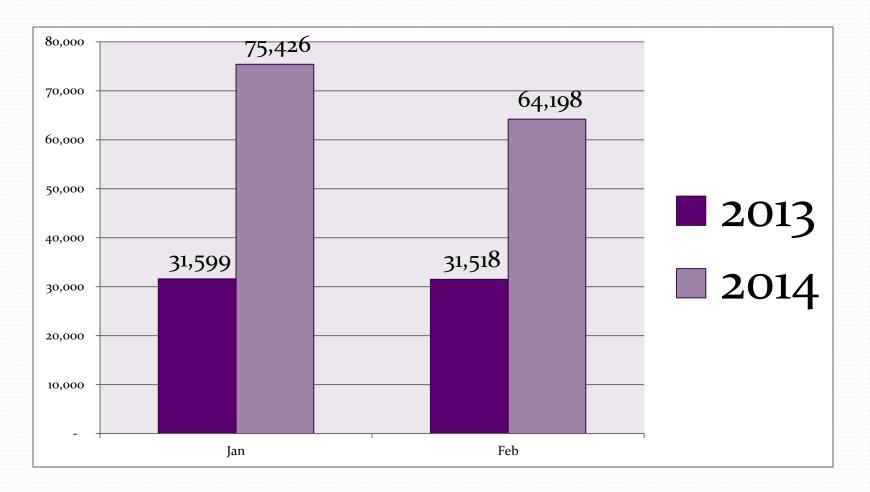
### 2013 – ACTUAL TONNAGES MOVED PER MONTH

The table below shows the 2013 actual tonnages per month

Jan-13 Feb-13 Mar-13 Apr-13 May-13 Jun-13 Jul-13 Aug-13 Sep-13 Oct-13 Nov-13 Dec-13Grand Total 31,599 31,518 36,985 52,854 69,992 59,556 91,407 83,030 60,664 76,957 71,420 66,302 732,284



### ZRL performance in tons Jan – Feb 2013 Compared to Jan – Feb 2014



There has been an increase in tonnages moved in Jan & Feb 2014 compared the same period of 2013.



## ZRL –Infrastructure & Rolling stock

- ZRL has a total of 37 Locomotives out of which only 24 are active and 13 need major repairs.
- ZRL has a total of 2 096 wagons of different types and only 1 353 make up the active fleet.
- ZRL has a total route length of 1 224 km of 1067 mm gauge, single track, made up of:

Mainline from Vic Falls Bridge to Kitwe	848 km
> Branch lines	214 Km
Mulobezi line	162 km



### REHABILITATION PROGRAMME

- In Feb, 2013 the Government released a total of USD120 million towards the rehabilitation of railway infrastructure and rolling stock.
- From the USD120 Million, ZRL allocated USD 81.8 million towards railway infrastructure and USD 38.2 Million towards rolling stock.

### TRACK REHABILITATION

- The track rehabilitation involves replacement of the expired wooden sleepers and steel sleepers with concrete sleepers (442 km), deep screening (796 Km), ballasting (440 000 m<sup>3)</sup>), welding of the rails to remove the joints, aligning and leveling the line with tamping machines.
- The required tamping machines and welding machines have been ordered.
- 32 contractors have been engaged for track rehabilitation (each with a minimum work force of 100 workers)

#### **ROLLING STOCK REHABILITATION**

- The following rolling stock will be rehabilitated and upgraded.
  - > 13 defective locos will be rehabilitated by Dec, 2015
  - 5 Operational locomotives which are over due for periodical overhaul shall be overhauled during the same time frame.
  - 17 U20C Locos shall be upgraded
  - 640 defective wagons will be rehabilitated during the same period
- The rehabilitation will be done within 2 years from October 2013 to November 2015.



### TRACK REHAB MACHINERY

 Mobile flash butt welding machine. This machine will be used to convert short rails into long welded rails.





## TRACK REHAB MACHINERY CONT'D

• The tamping machine. This machine will be used for alignment and leveling of the track.





# ACHIEVEMENTS -RAILWAY INFRASTRUCTURE

- The track rehabilitation was launched in October, 2013.
- An initial 117 700 concrete sleepers were purchased out of which 44 250 have been utilized by interlacing 1 in 4 in order to hold the gauge together and avoid derailments.
- 73 450 concrete sleepers have been utilized in re-sleepering and 64km has been concrete re- sleepered as at 31.03.2014 as shown in the charts below.

### ROLLINGSTOCK

- Spare parts to overhaul the Locomotives and wagons began arriving in March, 2014 and the overhaul of the first two GM locomotives has began.
- The overhaul of wagons awaits the arrival of major spares such as wheel discs and couplers.

ZAMBIA RAILWAYS LIMITED STATUS OF TRACK AS AT OCTOBER, 2013 (BEFORE TRACK REHABILITATION)

Chililabambwe (30,93)
Chingola (133 0) Mufulina (34,089)

Chambishi (97.944

Kitwe (66.104)

Ndola (786,833)

Kafulafuta (734.637)

Kapiri Mposhi (656.245)

Kabwe (594.438)

Chisamba (527.002)

Lusaka (473,997)

Kafue (426.008)

Mazabuka

Monze (317.921)

KEY

existing concrete sleeper sections

Handwood and steel Sleeper Area

Choma (216,959)

Kalomo (146,469)

Mulobezi LMingstone (8.9) ZAMBIA RAILWAYS LIMITED STATUS OF TRACK AS AT 31ST MARCH, 2014 (PROGRESS IN TRACK REHABILITATION)

Chililaba<u>mbwe</u> (30.93) Mufullra (34.089) Chingo<u>la</u> (133.

Chambishi (97.944) Kitwe (56.104) Sakanla

Ndola (786.833)

Kafulafuta (734.637)

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Mulobezi

Choma (216.95<del>9)</del>

Kalomo (146.469)



### Maintenance of Customer Sidings & Opening up of New Routes

ZRL has opened up some inter-mine routes that were dormant for almost a decade due to the previous operator who had no interest in the inter mine operations

- The following customer sidings were serviced and made ready for operations
  - Nitrogen Chemicals of Zambia siding in Kafue
  - Zambia Sugar siding in Mazabuka
  - TAZAMA GRZ Fuel Storage siding in Lusaka
  - Lafarge Clinker Line at Lafarge Cement siding
  - MMI Line in Lusaka's industrial area
  - Ndola Lime Siding in Ndola
  - The Batoka coal bay line for the purpose of loading coal from Maamba.
  - Nkana- Chingola line was serviced
  - Chingola yard lines 1, 2, 3 and the main line
  - Chambishi Metals line
  - Manica siding to Kitwe station new line



## **ZRL- Major Investment plans**

### **RAIL INFRASTRUCTURE (BROWN FIELD PROJECTS)**

- Rehabilitation of customer rail sidings at an estimated cost of USD15 Million
- Replacement of 80lb and 91lb skidded/ worn out rails at an estimated costs of USD87.1Million
- Rehabilitation of Mulobezi line at an estimated cost of USD100 Million
- Construction of inter mine lines at an estimated cost of USD41Million
- Operationalization of Nacala corridor at an estimated cost of USD19Million



## **ZRL- Major Investment plans**

### **NEW INTERMINE CONNECTIVITIES**

- A capital injection of USD41Million is required for the construction of new inter mine lines (97.1km)
- By 2018, the inter mine traffic market will be around 4 million tones. The market size is 2.9 million tones now and is likely to grow at a rate of 8% per annum.
- Currently the market share by ZRL is 12%. The target is to 52% by 2018.

INTER-MINE CONNECTIVITY - NEW LINES			
S/N	From	То	Km
1	Lubambe Mine	Chililabombwe Railway Station	20
2	Chambishi Copper smelter	Chambishi Railway Station	5
3	Mwekera	Ndola line	9
4	Neel Kathi Lime Plant	Ndola Lime	3.5
5	Ndola Lime	Zambezi Portland	4
6	Dangote Cement	Bwana Mkubwa Line	9
7	Bwana Mkubwa	Bridge Shipping Facility	2.6
8	Ndola	Luanshya Mine	38
9	KCM	Nchanga	5
10	Mopani Mine Mufurila	Mufurila Railway Station	1
otal			97.1



## **Greenfield Railway Projects**

- The following are Greenfield railway line projects:
  - Chipata-Mpika via Petauke, 569km
  - Nseluka-Mpulungu via Mbala, 191km
  - Northwestern railway to connect Chingola to Angola
  - Mulobezi-Kazungula into Botswana/Namibia
- The development of the Greenfield railway projects will increase route length and thereby enable ZRL to grow its business further and the final approval of these projects is the Zambian Government.



### Public Private Partnership- ZRL Needs

- ZRL needs a "finance only type of Public Private Partnership" to meet all of its investment needs and develop its brown field projects.
  - In this type of model the private sector partner funds the projects and charges ZRL interest for use of the funds (like a loan).
- On the other hand for Greenfield projects ZRL needs a finance, design, build and transfer type of PPP based on ZRL standards.



### **OTHER RAIL PROJECTS - MULOBEZI**

- CURRENT SITUATION
- The total length of the rail track is 162 km
- The Railway line is in a deplorable state



### OTHER RAIL PROJECTS - NACALA

- Current Status/ Situation at Chipata
- Total length of track from Chipata to Mchinji is 24km
- Chipata to Nacala is 1,150km
- ❖ 300,000 MT/year of traffic is available out of a potential of 600 000.
- No sheds/dry ports
- No triangle
- No repair sidings
- Lack of locomotive running shed
- No loading & offloading equipment
- No rail link between Chipata and Lusaka



## www.zrl.com.zm

## I thank you